

Use of Wind Data for Estimating Horizontal Dilution Potential of Atmosphere

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In this study, a new methodology is suggested for estimating horizontal dilution potential of an area using wind data. The mean wind speed and wind direction variation are used as a measure of linear and angular spread of pollutants in the atmosphere. A formula is developed for estimating the potential of horizontal spread of pollutants in an area wherein only the wind speed and direction are used. The methodology is further applied to monitor wind data of one year. It is found that there is a very smooth variation of horizontal dilution potential over a year with limited dilution during post monsoon period and a high dilution in pre monsoon period.

Key words : *Windrose, dilution potential, persistence, standard deviation of wind direction*